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10/825,596	04/14/2004	Chen Goh	B-5414 621818-0	7793
22879 7590 01/07/2009 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400				
EXAMINER GERGISO, TECHANE				
ART UNIT 2437		PAPER NUMBER		
NOTIFICATION DATE 01/07/2009		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/825,596

**Applicant(s)**

GOH ET AL

**Examiner**

TECHANE J. GERGISO

**Art Unit**

2437

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 23-28 and 43-58 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23-28 and 43-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

#### **DETAILED ACTION**

1. This is a Final Office Action in response to the applicant's communication filed on October 21, 2008.
2. Claim 23-28 and 43-58 have been examined and are pending.

#### ***Response to Arguments***

3. Applicant's arguments filed on October 21, 2008 have been fully considered but they are not persuasive.

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

The applicant argues that the prior in record does teach "encrypting a first item, according to an Identifier-Based Encryption, IBE, scheme, in dependence on encryption parameters comprising a first encryption key string that identifies said specific individual, and public data of a first trusted authority". The examiner disagrees with the applicant's argument and analysis. The primary prior art, Appenzeller, teaches Identifier-Based Encryption (0013). The encryption disclosed by Appenzeller, depends on first encryption key string that identifies said specific individual:

[private key considered as the first encryption key string; see paragraph 0047: The private key generator may generate private keys for each of the multiple users associated with that private key generator based on the identities of each of these users. The identity

of a user may be represented by any suitable string, number, or symbol. For example, the identity of a message recipient may be represented by that user's email address, name, or social security number. The user's privileges may be made to automatically expire in system 10 by automatically concatenating the current time (e.g., the current day of the year and year, the current month, or any other suitable time related date-stamp information) with the user's email address. Other information (e.g., credentials such as a security clearance) may also be combined with the user's email address or other identity to provide enhanced cryptographic services. For clarity, the user's identity will be represented herein as the number Q. A suitable mathematical function may be used to determine the value of Q suitable for use as an input to the private key generation algorithm from a string representation of the user's identity such as the user's email address or the user's email address concatenated with other information.]

and also depends on public data of a first trusted authority:

**[public key of certificate authority or the public parameters from a trusted directory service considered as public data of a first trusted authority, see paragraph 0082:** The sender may then verify the signature on the certificate using the certification authority's public key. The public key of the certification authority may be built in to the user software, may be accessed on-line by the user software, or may otherwise be provided to the users of the system. If desired, certificates may be chained together, so that multiple layers of certifying organizations can certify in a hierarchical fashion. Either of these two approaches (obtaining the public parameters from a trusted directory service over a secure or trusted channel or obtaining the public parameters from

an untrusted directory service in the form of a certificate signed by a certification authority) or any other suitable approach may be used to ensure that the public parameters that the sender receives are in fact those associated with the intended organization/receiver.]

From the above citation and discussion it is clear that Appenzeller discloses “encrypting a first item, according to an Identifier-Based Encryption, IBE, scheme, in dependence on encryption parameters comprising a first encryption key string that identifies said specific individual, and public data of a first trusted authority”. Therefore, the applicant’s argument is not persuasive to overcome the prior arts in record to place the independent claims including their corresponding dependent claims in condition for allowance

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 23-28 and n43-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Appenzeller et al (Hereinafter referred to as, Appenzeller, US Pub No.: 2004/0098589 A1) in view Bonch et al. (hereinafter referred to as Bonch, US Pub No.: 2003/0081785 A1).

As per claim 23:

Appenzeller discloses a secure data-provision method for providing target data from a data provider to a party purporting to be a specific, professionally-accredited, individual engaged by a specific accredited organization, the target data being provided in encrypted form as part of a data set; the method comprising:

encrypting a first item, according to an Identifier-Based Encryption, IBE, scheme, in dependence on encryption parameters comprising a first encryption key string that identifies said specific individual, and public data of a first trusted authority (0047; 0070; 0076; 0079; 0082); and

encrypting a second item, according to an IBE scheme, in dependence on encryption parameters comprising a second encryption key string that identifies said specific organization, and public data of a second trusted authority (0047; 0070; 0076; 0079; 0082; ); and

forming said data set using at least the encrypted first and second items (0085);

recovery of the target data in clear requiring decryption of both the first and second items (0058; 0068).

Appenzeller does not explicitly disclose a first trusted authority competent in respect of professional accreditations and a second trusted authority competent in respect of accreditations of organizations. Bonch, in analogous art, however discloses a first trusted authority competent in respect of professional accreditations and a second trusted authority competent in respect of accreditations of organizations (0053; 0054). Therefore, it could have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system disclosed

by Appenzeller to include a first trusted authority competent in respect of professional accreditations and a second trusted authority competent in respect of accreditations of organizations. This modification could have been obvious because a person having ordinary skill in the art would have been motivated to do so to provide a system of encrypting a first piece of information to be sent by a sender to a receiver uses an encryption key generated from a second piece of information using a bilinear map and the encryption key are used to encrypt at least a portion of the first piece of information to be sent from the sender to the receiver. The bilinear map may be symmetric or asymmetric as suggested by Boneh in (0110).

As per claim 24:

Appenzeller discloses a method, wherein the first item comprises the target data, and the second item comprises the encrypted first item (0047).

As per claim 25:

Appenzeller discloses a method, wherein the first item comprises the target data, and the second item comprises a nonce; the first encryption key string comprising, in combination, an identifier of said specific individual and said nonce (0020; 0047; 0079).

As per claim 26:

Boneh discloses a method, wherein the first item comprises first data, and the second item comprises second data; the data set further comprising said target data encrypted using a symmetric key that can be formed by using both said first and second data (0010; 0050).

As per claim 27:

Bonch discloses a method, wherein the data set comprises, in addition to said first and second items, said target data encrypted using a first symmetric key, the second item comprising a second symmetric key, and the first item comprising the first symmetric key encrypted using the second symmetric key (0010; 0050).

As per claim 28:

Appenzeller discloses a secure data-provision method for providing target data from a data provider to a party purporting to be a specific, professionally-accredited, individual engaged by a specific accredited organization, the target data being provided in encrypted form as part of a data set, the method comprising:

encrypting a first item using both a first encryption key string that identifies said specific individual, and public data of a first trusted authority (0047; 0070; 0076; 0079; 0082); and

encrypting a second item using both a second encryption key string that identifies said specific organization, and public data of a second trusted authority (0047; 0070; 0076; 0079; 0082); and

forming said data set using at least the encrypted first and second items (0085);

recovery of the target data in clear requiring decryption of both the first and second items (0058; 0068).



Appenzeller does not explicitly disclose a first trusted authority competent in respect of professional accreditations and a second trusted authority competent in respect of accreditations of organizations. Boneh, in analogous art, however discloses a first trusted authority competent in respect of professional accreditations and a second trusted authority competent in respect of accreditations of organizations (0053; 0054). Therefore, it could have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system disclosed by Appenzeller to include a first trusted authority competent in respect of professional accreditations and a second trusted authority competent in respect of accreditations of organizations. This modification could have been obvious because a person having ordinary skill in the art would have been motivated to do so to provide a system of encrypting a first piece of information to be sent by a sender to a receiver uses an encryption key generated from a second piece of information using a bilinear map and the encryption key are used to encrypt at least a portion of the first piece of information to be sent from the sender to the receiver. The bilinear map may be symmetric or asymmetric as suggested by Boneh in (0110).

As per claim 43:

Appenzeller discloses an apparatus for the secure provision of target data to a party purporting to be a specific, professionally-accredited, individual engaged by a specific accredited organization, the apparatus comprising an encryption subsystem for generating a data set including the target data in encrypted form, the encryption subsystem comprising:

first encryption means for encrypting a first item, according to an Identifier-Based Encryption, IBE, scheme, based on encryption parameters comprising a first

encryption key string that identifies said specific individual, and public data of a first trusted authority (0047; 0070; 0076; 0079; 0082);

second encryption means for encrypting a second item, according to an IBE scheme, based on encryption parameters comprising a second encryption key string that identifies said specific organization, and public data of a second trusted authority (0047; 0070; 0076; 0079; 0082); and

means for forming the data set using at least the encrypted first and second items; the recovery of the target data in clear requiring decryption of both the first and second items (0058; 0068).

Appenzeller does not explicitly disclose a first trusted authority competent in respect of professional accreditations and a second trusted authority competent in respect of accreditations of organizations. Boneh, in analogous art, however discloses a first trusted authority competent in respect of professional accreditations and a second trusted authority competent in respect of accreditations of organizations (0053; 0054). Therefore, it could have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system disclosed by Appenzeller to include a first trusted authority competent in respect of professional accreditations and a second trusted authority competent in respect of accreditations of organizations. This modification could have been obvious because a person having ordinary skill in the art would have been motivated to do so to provide a system of encrypting a first piece of information to be sent by a sender to a receiver uses an encryption key generated from a second piece of information using a bilinear map and the encryption key are used to encrypt at least a

portion of the first piece of information to be sent from the sender to the receiver. The bilinear map may be symmetric or asymmetric as suggested by Bonch in (0110).

As per claim 44:

Appenzeller discloses an apparatus, wherein the first item comprises the target data, and the second item comprises the encrypted first item (0047).

As per claim 45:

Appenzeller discloses an apparatus, wherein the first item comprises the target data, and the second item comprises a nonce; the first encryption key string comprising, in combination, an identifier of said specific individual and said nonce (0020; 0047; 0079).

As per claim 46:

Appenzeller discloses an apparatus, wherein the first item comprises first data, and the second item comprises second data; the data set further comprising said target data encrypted using a symmetric key that can be formed by using both said first and second data (0010; 0050).

As per claim 47:

Appenzeller discloses an apparatus, wherein the data set comprises, in addition to said first and second items, said target data encrypted using a first symmetric key, the second item comprising a second symmetric key, and the first item comprising the first symmetric key encrypted using the second symmetric key (0010; 0050).

As per claim 48:

Appenzeller discloses a computing entity for recovering target data provided in encrypted form as part of an data set that comprises first and second encrypted items both of which must be decrypted to recover the target data, the first item being encrypted in dependence on encryption parameters comprising a first encryption key string that identifies a specific individual and first public data, and the second item being encrypted in dependence on a second encryption key string that identifies a specific organization and second public data; the entity comprising:

first means for requesting either a first decryption key corresponding to the first encryption key string, or the first item in decrypted form, from a first trusted authority and holds first private data related to the first public data, the first means being arranged to provide the first encryption key string to the first trusted authority when making its request and being further arranged to authenticate the entity with the first trusted authority and to receive the first decryption key, or the first item, securely from the first trusted authority (0047; 0070; 0076; 0079; 0082);

second means for requesting either a second decryption key corresponding to the second encryption key string, or the second item in decrypted form, which holds second private data related to the second public data, the second means being arranged to provide the second encryption key string to the organization when making its request and being further arranged to authenticate the entity with the organization

and receive the second decryption key, or the second item, from the organization (0047; 0070; 0076; 0079; 0082);

third means for using the first decryption key, or the first item, provided by the first trusted authority and the second decryption key, or the second item, provided by the organization, to recover the target data (0058; 0068).

Appenzeller does not explicitly disclose an organization accredited by a second trusted authority. Boneh, in analogous art, however discloses an organization accredited by a second trusted authority (0053; 0054). Therefore, it could have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system disclosed by Appenzeller to include an organization accredited by a second trusted authority. This modification could have been obvious because a person having ordinary skill in the art would have been motivated to do so to provide a system of encrypting a first piece of information to be sent by a sender to a receiver uses an encryption key generated from a second piece of information using a bilinear map and the encryption key are used to encrypt at least a portion of the first piece of information to be sent from the sender to the receiver. The bilinear map may be symmetric or asymmetric as suggested by Boneh in (0110).

As per claim 49:

Appenzeller discloses a computing entity, wherein the second means is arranged to receive the second decryption key, or the second item, securely from the organization (0047).

As per claim 50:

Appenzeller discloses a computing entity, wherein the first item comprises the target data, and the second item comprises the encrypted first item; the third means being arranged to recover the second item, if not provided to the second means in decrypted form by the organization, by using the second decryption key obtained from the organization, and subject the second item to decryption, using the first decryption key obtained from the first trusted authority, to recover the target data (0077; 0082).

As per claim 51:

Boneh discloses a computing entity, wherein the first item comprises the target data, the second item comprises a nonce, and the first encryption key string comprises, in combination, an identifier of said specific individual and said nonce; the third means being arranged to:

recover the second item, if not provided to the second means in decrypted form by the organization, by using the second decryption key obtained from the organization (0022-0025),

combine the nonce that formed the second item with the identifier of said specific individual in order to form the first encryption key string to be provided by the first means to the first trusted authority (0024, 0040; 0043), and

use the first decryption key obtained from the first trusted authority to decrypt the first item and thereby recover the target data (0043).

As per claim 52:

Boneh discloses a computing entity, wherein the first item comprises first data and the second item comprises second data, the data set further comprising said target data encrypted using a symmetric key that can be formed by using both said first and second data; the third means being arranged to

recover the first data, if not provided to the first means by the first trusted authority, by using the first decryption key obtained from the first trusted authority (0022-0025; 0043),

recover the second data, if not provided to the second means in decrypted form by the organization, by using the second decryption key obtained from the organization (0024, 0040; 0043),

use the first data and the second data to form said symmetric key, and use the symmetric key to decrypt the target data (0043).

As per claim 53:

Boneh discloses a computing entity, wherein the data set comprises, in addition to said first and second items, said target data encrypted using a first symmetric key, the second item comprising a second symmetric key, and the first item comprising the first symmetric key encrypted using the second symmetric key; the third means being arranged to:

recover the first item, if not provided to the first means by the first trusted authority, by using the first decryption key obtained from the first trusted authority (0022-0025; 0043),

recover the second item, if not provided to the second means in decrypted form by the organization, by using the second decryption key obtained from the organization (0024, 0040; 0043),  
use the second symmetric key that formed the second item to decrypt the encrypted first symmetric key that formed the first item (0040; 0050) , and  
use the first symmetric key to decrypt the encrypted target data (0040; 0050).

As per claim 54:

Bonch discloses a computing entity for recovering target data provided in encrypted form as part of an data set that comprises first and second encrypted items both of which must be decrypted to recover the target data; the first item being encrypted in dependence on a first encryption key string that identifies a specific individual, and first public data; and the second item being encrypted in dependence on a second encryption key that identifies a specific organization and said specific individual, and second public data; the entity comprising:

first means for requesting either a first decryption key corresponding to the first encryption key, or the first item in decrypted form, and holds first private data related to the first public data, the first means being arranged to provide the first encryption key string, or the first item, to the first trusted authority when making its request (0047; 0070; 0076; 0079);

second means for requesting either a second decryption key corresponding to the second encryption key string, or the second item in decrypted form, from an organization accredited by a second trusted authority which holds second private data related to



the second public data, the second means being arranged to provide the second encryption key string to the organization when making its request (0047; 0070; 0076; 0079); and

third means for using the first decryption key, or the first item, provided by the first trusted authority and the second decryption key, or the second item, provided by the organization, to recover the target data (0058; 0068);

at least one of the first means and the second means being arranged to authenticate the entity to the first trusted authority or said organization as the case may be and to receive input therefrom in a secure manner (0058; 0068).

Appenzeller does not explicitly disclose a first trusted authority which is competent in respect of the accreditation of professionals. Boneh, in analogous art, however discloses a first trusted authority which is competent in respect of the accreditation of professionals (0053; 0054). Therefore, it could have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system disclosed by Appenzeller to include a first trusted authority which is competent in respect of the accreditation of professionals. This modification could have been obvious because a person having ordinary skill in the art would have been motivated to do so to provide a system of encrypting a first piece of information to be sent by a sender to a receiver uses an encryption key generated from a second piece of information using a bilinear map and the encryption key are used to encrypt at least a portion of the first piece of information to be sent from the sender to the receiver. The bilinear map may be symmetric or asymmetric as suggested by Boneh in (0110).

As per claim 55:

Appenzeller discloses a computing entity, wherein the first item comprises the target data, and the second item comprises the encrypted first item; the third means being arranged to: recover the second item, if not provided to the second means in decrypted form by the organization, by using the second decryption key obtained from the organization, and subject the second item to decryption, using the first decryption key obtained from the first trusted authority, to recover the target data (0077; 0082).

As per claim 56:

Boneh discloses a computing, wherein the first item comprises the target data, the second item comprises a nonce, and the first encryption key string comprises, in combination, an identifier of said specific individual and said nonce; the third means being arranged to:

recover the second item, if not provided to the second means in decrypted form by the organization, by using the second decryption key obtained from the organization (0022-0025),

combine the nonce that formed the second item with the identifier of said specific individual in order to form the first encryption key string to be provided by the first means to the first trusted authority (0024, 0040; 0043), and

use the first decryption key obtained from the first trusted authority to decrypt the first item and thereby recover the target data (0043).

As per claim 57:

Boneh discloses a computing entity, wherein the first item comprises first data and the second item comprises second data, the data set further comprising said target data encrypted using a symmetric key that can be formed by using both said first and second data; the third means being arranged to

recover the first data, if not provided to the first means by the first trusted authority, by using the first decryption key obtained from the first trusted authority (0022-0025; 0043),

recover the second data, if not provided to the second means in decrypted form by the organization, by using the second decryption key obtained from the organization (0024, 0040; 0043),

use the first data and the second data to form said symmetric key, and use the symmetric key to decrypt the target data (0043).

As per claim 58:

Boneh discloses a computing entity, wherein the data set comprises, in addition to said first and second items, said target data encrypted using a first symmetric key, the second item comprising a second symmetric key, and the first item comprising the first symmetric key encrypted using the second symmetric key; the third means being arranged to:

recover the first item, if not provided to the first means by the first trusted authority, by using the first decryption key obtained from the first trusted authority (0022-0025; 0043),

recover the second item, if not provided to the second means in decrypted form by the organization, by using the second decryption key obtained from the organization (0024, 0040; 0043),  
use the second symmetric key that formed the second item to decrypt the encrypted first symmetric key that formed the first item (0040; 0050), and  
use the first symmetric key to decrypt the encrypted target data (0040; 0050).

### **Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See the notice of reference cited in form PTO-892 for additional prior art.
7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

**Contact Information**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Techane J. Gergiso whose telephone number is (571) 272-3784 and fax number is (571) 273-3784. The examiner can normally be reached on 9:00am - 6:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Techane J. Gergiso/

Examiner, Art Unit 2437

/Emmanuel L. Moise/

Supervisory Patent Examiner, Art Unit 2437